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Seed-stage algae-to-biofuels start-up

Technical Innovation	• Rapid & stable nuclear genetic engineering of eukaryotic algae • WW exclusive license Max Planck
Costumers	• Algae-to-biofuels, big oil, Ag-biotech, High-margin products
Products	• Licensing/strategic partnerships for biofuels and alternative products • Services
Value to Costumers	• Proprietary solutions for higher conversion of CO2 and oils secretion by non-toxic mechanism • 50%-80% reductions in costs
Value to Investors	• Minimize funding to value inflection milestones + no large capital investments

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Biodiesel Opportunity

55% CAGR; US Current 3,3 bn gallons; feedstock availability
Algae potential and momentum

Problem: high cost

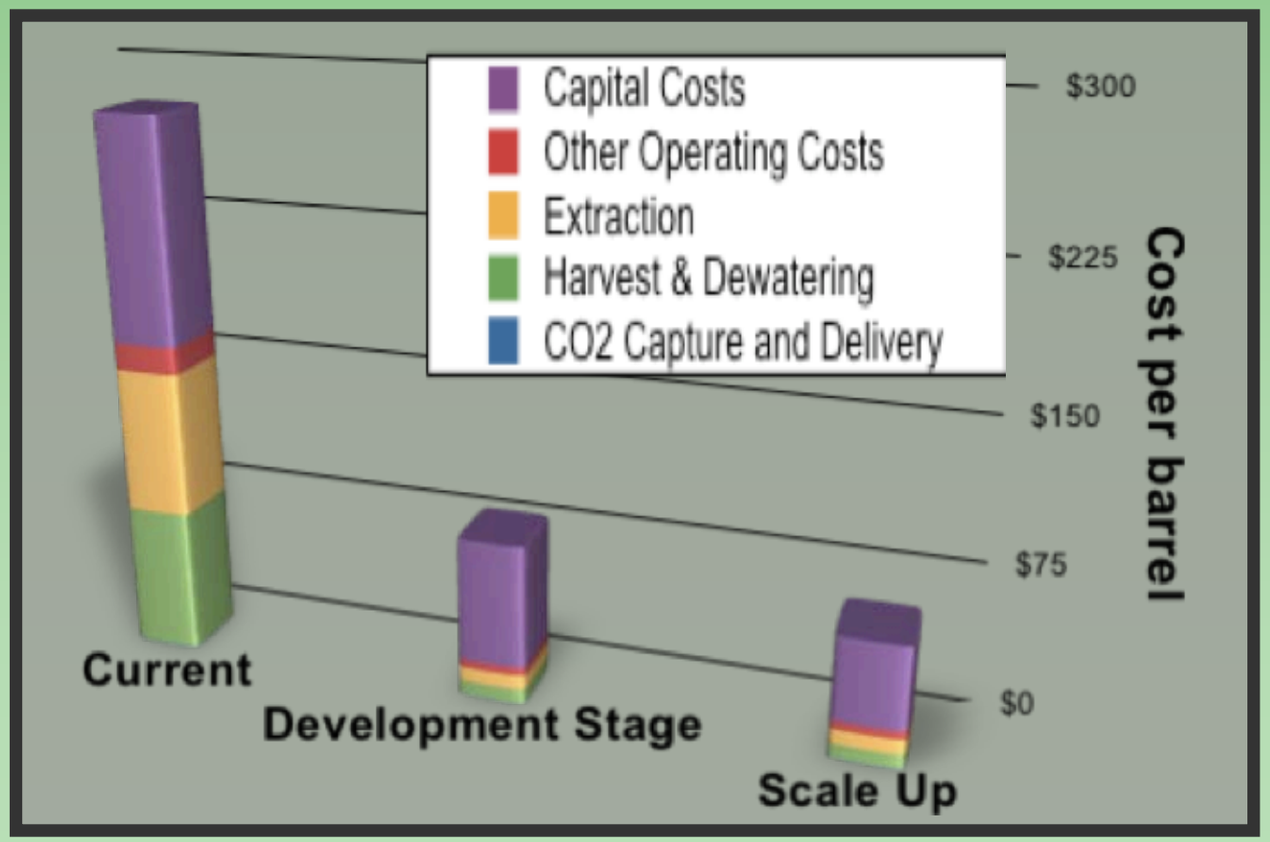
Expensive cultivation, harvesting, and extraction

GPB's solutions [50-80% reduction in cost]

Excrete oil (fat) by non-toxic mechanism

Convert more CO2 into oil

Grow in open-ponds without contamination



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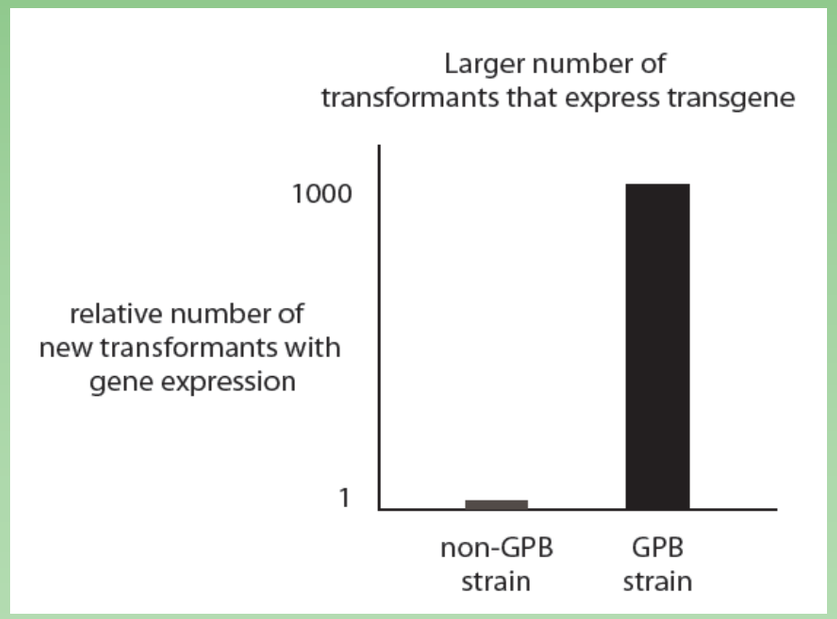
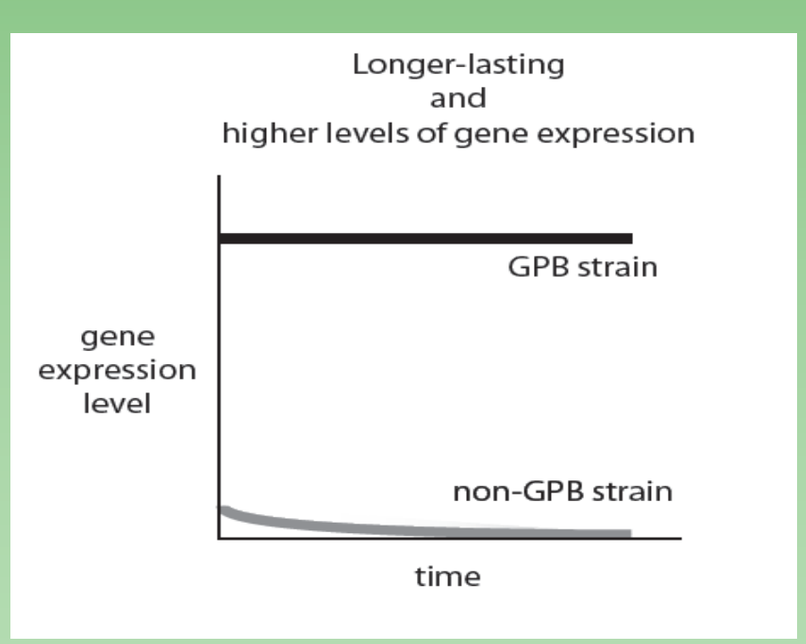
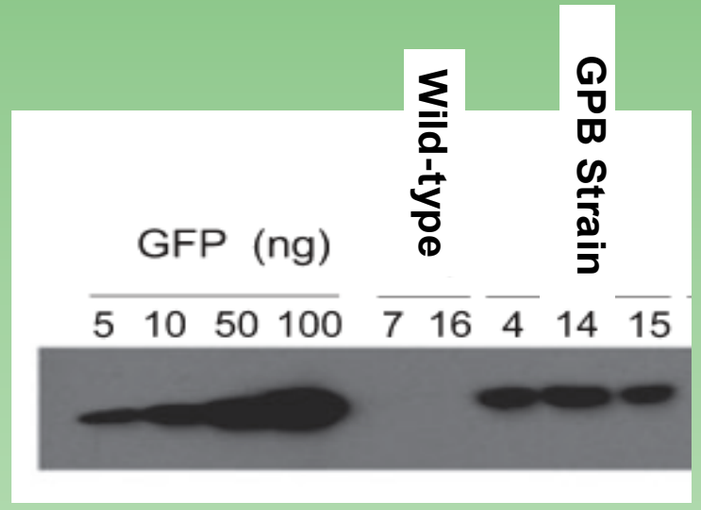
What's is GPB's competitive advantage?
Rapid & stable algae nuclear genetic engineering







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	Other companies (A)	Other companies (B)	Other companies (C)	GPB [no compromises]
Organism with high levels of oils	✓	✗ [cyanobacteria]	✓	✓
Powerful genetic engineering	✗ [chloroplast]	✓	✗	✓
Secretion by non-toxic mechanism	✗	✗ [crude-like molec & ethanol]	✗	✓
Engineering platform- go beyond what natures offers	✓	✓	✗	✓

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Technical breakthrough to aggressively address production hurdles

- Bring genetic engineering and synthetic biology to algae biofuels
- Secretion + higher oils to 50-80% reduction in cost to ~$60/bbl

Minimize investments to reach value inflection milestones

- $1M+$4M, 36 months to prototype secretion + higher oils
- Low-risk value inflection points
- Early sources of revenue: high-value cosmeceuticals/nutraceuticals
- Large overlap between biofuels and high-value products
- R&D and production outsourcing
- Aggressive grant funding for biofuels

No Large Capital Investments

- Focus on engineering of strains
- Early strategic partnerships/service/M&A

Accomplished management and scientific team

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Management Team

Richard Yu	CEO-Yale PhD, Sr Fellow MSI, Yeast/algae genetic engineering and biochemistry
Leandro Vetcher	Business Development- Columbia MA Biotech, MIT MBA, Drug and Business development, Plant lipid biology
Wallace Marshall	President SAB- Professor, UCSF, Dept. of Biochem & Bioph, Leader in C. reinhardtii engineering and organelle size control

Advisory Board

Robert Farese	Gladstone, UCSF -Prof. Biochem & Bioph, Leader in fat synthesis and cell biology of fat droplets
Ralph Bock	Director Max Planck Inst. of Molec. Plant Physiology, Leader in C. reinhardtii genetic modification methods
Wayne Riekhof	Fellow Department of Medicine - National Jewish Health, Expert in C. reinhardtii lipid metabolism
Peter Walter	Prof. Chair, UCSF -Department of Biochem & Bioph, Leader in membrane biogenesis and secretion
Dan Santi	Director Translational Research- QB3, former CEO Kosan, Pioneer in synthetic biology, Successful Bioentrepreneur

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March 2010 | 6-9 Months | 24 Months

Proof-of-concept | Development | Optimization

50% higher oils – metabolic engineering

High-margin product – metabolic engineering

200% higher oils – metabolic engineering

POC Secretion

New IP engineering platform

300% higher oils + Secretion

Strategic partnership for high-margin product

Service agreement for algae biofuels

$750,000-$1,000,000

$4,000,000-$5,000,000

Strategic Partnership/M&A – Big oil, Algae biofuel, Ag oil

Early Revenue- Strategic Partnership for high margin product

Early Revenue- Services for algae engineering

Financing for growth – VC/PE, Public